

A New Species of the Genus *Ischalia* (Coleoptera, Anthicidae, Ischaliinae) from Hokkaido, Japan

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Abstract A new species of the ischaliid genus *Ischalia* is described from Hokkaido, Japan, under the name of *Ischalia arakii* M. SAITÔ. A key to the species of the subgenus *Pseudohomalisus* is also given.

SAITÔ (1994) reviewed the genus *Ischalia* of Japan, and divided so-called *I. patagiata* LEWIS into three species, *I. patagiata* LEWIS, *I. luteolineata* PIC and *I. takane* M. SAITÔ. On the other hand, NIKITSKY (1994) described two new species, *I. brachyptera* and *I. kunashirica* from the Russian Far East. Before their studies, ARAKI (1991) firstly recorded "*I. patagiata*" from Hokkaido, Japan based on a unique specimen. Last year, Mr. ARAKI entrusted me this only one specimen collected in Hokkaido for revision.

After a careful examination, I came to realize that the specimen might belong to *I. kunashirica* NIKITSKY, since morphological differences are rather small and since its locality is geographically near to that of the latter. At last, however, I have concluded that the Hokkaido specimen is specifically different from Kunashiri one and am going to describe it in the present paper under the name of *I. arakii* M. SAITÔ, sp. nov. as a fourth species of the genus *Ischalia* from Japan.

I wish to express my deep gratitude to Emeritus Professor Hiroyuki SASAJI (Fukui University) for his continuous advice and encouragement, and to Professor Masataka SATÔ (Biological Laboratory, Nagoya Women's University, Nagoya) for his kind support of this work. Heartly thanks are also due to Messrs. Tetsu ARAKI (Aomori) and Toshihiro OZAKI (Aomori) for their kind help in offering materials, and to Mr. Seiji MORITA (Tokyo) for his kind help for this work.

***Ischalia (Pseudohomalisus) arakii* M. SAITÔ, sp. nov.**

[Japanese name: Ezo-herihane-mushi]

(Fig. 1)

Description. Female. Body elongate, flat, somewhat shining; surface rather closely covered with pale yellowish brown pubescence except for the antennae which are dark, and thickly and closely pubescent. Body wholly brownish black in ground colour, with somewhat paler mouthparts and tarsi; elytra brownish black in the inner-

half of each elytron, brownish black along lateral borders, and yellow between the two stripes and at the edges; the yellow stripes and edges not joining at the elytral apex.

Head suboval, rather sparsely punctate on the surface, furrowed backwards to between eyes at the middle, and weakly swollen on each side of the furrow by a distinct small gibbosity; antennal sockets swollen; clypeus separated from frons by a transverse groove; eyes kidney-shaped and moderately produced. Antennae shorter than half the length of body, terminal segment obliquely truncated outwards and 1.5 times as long as 10th segment; relative length of each segment as 1.3, 0.8, 1.2, 1.0, 0.9, 1.0, 1.0, 0.8, 0.9, 0.8, 1.3. Terminal segment of maxillary palpus triangular, thick, its outer margin about as long as anterior margin.

Pronotum campanulate, about 1.2 times as wide as long, and widest at the base; lateral margins strongly arcuate in front, with very obtuse apical angles, and weakly sinuate towards hind angles which are very obtusely produced; sides narrowly bordered, the border invisible from above, due to the deflexed edges; basal margin weakly bisinuate; disc gibbous in front half with triangular depression at the middle, strongly

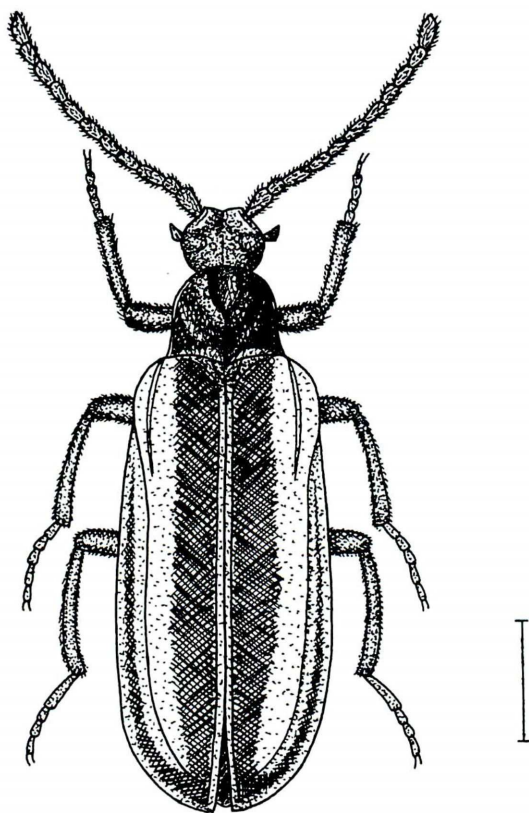


Fig. 1. *Ischalia (Pseudohomalisis) arakii* M. SAITÔ, sp. nov., ♀. Scale: 1 mm.

depressed in anterior area near the angle, transversely concave behind the gibbosity with a very strong median longitudinal carina which is produced backwards; a pair of very deep foveae present at the sides of median carina and stronger ones inside lateral borders, all transversely concave; the punctures on the surface as on head. Scutellum triangular, rounded at the tip, surface rather coarsely punctate.

Elytra flat, subparallel-sided, about 2.2 times as long as wide between shoulders, which are rounded but distinct; sides slightly divergent from behind shoulders, moderately and widely arcuate in apical third; surface coarsely and very densely punctate, the punctures becoming indistinct but rough on sutural rim; suture clearly raised to form a costa; each elytron with a long sharp carina extending from base to near apex along lateral border which is strongly arcuate in humeral part and faintly extends to suture at apical end, a somewhat dull short humeral costa present inside the long carina. Wings full.

Basal segment of hind tarsus 0.35 times as long as hind tibia, and about as long as the preceding segments taken together. Mesepisterna approaching to each other in front.

Length: 5.1 mm; breadth (between shoulders): 1.7 mm.

Male. Unknown.

Type series. Holotype: ♀, Mt. Mokoto, Abashiri, Hokkaido, 16–VII–1988, T. ARAKI leg. The holotype is preserved in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Distribution. Hokkaido, Northeast Japan.

Notes. This new species is very similar to *I. kunashirica*, but is discriminated from the latter by the lateral border of each elytron narrow and clearly yellow in colour.

The specific name is given after Mr. Tetsu ARAKI who collected this new species and forwarded me for study.

Discussion

Ischalia arakii is very closely related to *I. kunashirica* and *I. luteolineata* PIC. It seems that the three species mentioned above constitute a complex for the following reason: 1) the vertex provided with a pair of distinct small gibbosities; 2) the elytra furnished with a pair of yellow longitudinal stripes. Besides, *I. arakii* is also related to the *I. patagiata* group in having weak small gibbosities on the vertex and yellow lateral borders of the elytra.

Some species of the subgenus *Pseudohomalisis* including the new species are described in recent years as shown by SATÔ (2001), so that a key to all the species are given below.

Key to the Species of the Subgenus *Pseudohomalisis* of *Ischalia*

1. Lateral margins of pronotum distinctly convergent forwards, but almost straight in

- front and distinctly angulate at the middle 2.
- Lateral margins of pronotum arcuate in front, neither distinctly convergent forwards nor angulate at the middle 3.
2. Width of yellow area of each elytron more than a half the elytral width, its coloration pale yellowish brown *I. suturalis* BLAIR.
- Width of yellow area of each elytron less than a half the elytral width, its coloration reddish yellow *I. martensi* PAULUS.
3. Lateral border of each elytron clearly yellow; lateral halves of elytra yellow, but sometimes only narrowly bordered 4.
- Lateral border of each elytron clearly brownish black; elytra provided with a pair of yellow longitudinal stripes 13.
4. Elytra without dark band; margins of pronotum yellow *I. acco* M. SATÔ
- Elytra with dark band 5.
5. Lateral area of each elytron only very narrowly bordered in yellow, as if each elytron has a yellow longitudinal stripe only along lateral border.
- *I. arakii* M. SAITÔ sp. nov.
- Lateral area of each elytron widely yellow. 6.
6. Elytral suture yellow. 7.
- Elytral suture dark-coloured. 8.
7. Pronotum with median longitudinal furrow; elytra short, less than 2.4 times as long as wide *I. nepalensis* PAULUS.
- Pronotum without median longitudinal furrow; elytra long, more than 2.4 times as long as wide *I. tsuyukii* OHBAYASHI et TÔYAMA.
8. Long carina of each elytron reaching the apex. *I. arisana* KÔNO.
- Long carina of each elytron not reaching the apex. 9.
9. Apices of elytra sinuate, distinctly projected and dark in colour; wings reduced *I. brachyptera* NIKITSKY.
- Apices of elytra widely rounded, not projected and pale in colour 10.
10. Sides of dark band of elytra gradually narrowing forwards from middle, not parallel; wings reduced. *I. uenoi* M. SATÔ.
- Sides of dark band of elytra parallel, not narrowing forwards. 11.
11. Body large, more than 7 mm; lateral areas of pronotum yellow in colour; yellow area of each elytron about as wide as dark area
- *I. latemarginata* OHBAYASHI et TÔYAMA.
- Body small, less than 7 mm; lateral areas of pronotum dark in colour; yellow area of each elytron about as wide as dark area. 12.
12. Wings full; elytra parallel-sided; short humeral costa of each elytron more highly raised than the outer long carina *I. patagiata* LEWIS.
- Wings atrophied; elytral sides slightly divergent towards apices; short humeral costa of each elytron about equal in height with outer long carina.
- *I. takane* M. SAITÔ.
13. Longitudinal orange area on each elytron narrow, distinctly narrower than the

- inner dark area *I. luteolineata* PIC.
 — Longitudinal orange area on each elytron wide and almost as wide as the inner
 dark area. *I. kunashirica* NIKITSKY.

要 約

斎藤昌弘：日本産ヘリハネムシ属の1新種。—— 荒木 (1991) はヘリハネムシ *Ischalia patagiata* LEWISを北海道から初めて記録したが、その標本が再確認のため筆者の手許に届けられた。詳細に調査したところ、NIKITSKY (1994) が国後島から記載した *I. kunashirica* にきわめてよく似ているものの、別種であることが判明したので、エゾヘリハネムシ *Ischalia arakii* M. SAITÔとして記載した。これは日本産第4番目の種となる。

なお、近年になって本種が含まれる *Pseudohomalitus* 亜属から複数の種が新たに報告されたので、それらを整理して検索表を示した。

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A New Synonym of *Leprocaulinus* (Coleoptera, Tenebrionidae), with Proposal of a New Combination, *L. sumatranus*

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KASZAB (1984) erected a genus, *Pigeocaulinus*, for *Pigeocaulinus sumatranus* KASZAB. I had an opportunity of examining the holotype of *P. sumatranus*. The peculiarities of the genus mentioned by KASZAB are nothing but those of a female of *Leprocaulinus*. Thus, I have concluded that *Pigeocaulinus* is a junior synonym of *Leprocaulinus*; *P. sumatranus* should be newly combined as shown below. I appreciate Dr. Ottó MERKL, the Hungarian Natural History Museum, for giving me permission of examining the type specimen and invaluable suggestion.

Genus *Leprocaulinus* KASZAB, 1982

Leprocaulinus KASZAB, 1982, Acta zool. Acad. Sci. hung., **28**: 75. Type species. *Leprocaulinus krikkeni* KASZAB, 1982.

Pigeocaulinus KASZAB, 1984, Acta zool. Acad. Sci. hung., **30**: 388. Type species. *Pigeocaulinus sumatranus* KASZAB, 1982. (*Syn. nov.*)

Leprocaulinus sumatranus (KASZAB, 1982), comb. nov.

Pigeocaulinus sumatranus KASZAB, 1982, Acta zool. Acad. Sci. hung., **28**: 389.